

Survey of India, for his sustained help and guidance in the preparation of this paper.

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#### 21. SOME NEW FOOD PLANTS OF *DROSICHA MANGIFERAE* (GREEN) IN MADHYA PRADESH (HOMOPTERA: MARGARODIDAE)

*Drosicha* (*Monophlebus*) *mangiferae* (*stebingi*) (Green), the giant mealy bug, is a widely distributed, sporadic, polyphagous pest, throughout India. During 1959-61, it caused considerable loss to citrus, guava, fig, ber and mango at Gwalior and some other places in Madhya Pradesh. A survey was carried out to investigate its food plants. Rahman and Latif (1944) reviewed the host plants of the pest recorded in India by previous workers and reported sixty-two host plants in the Punjab including twenty-three not previously recorded but found it to be a serious pest of mango only. Wasial Haque (1955), Sen & Prasad (1956) and Pruthi & Batra (1960) added further lists of host plants of the pest. The author (1968) reported sixty-six food plants of economic importance in M.P. and twenty-eight of them, namely Bael (*Aegle marmelos*), Anwala (*Phyllanthus emblica*), Chikoo (*Achras sapota*), Mahandi (*Lawsonia alba*), *Acalypha* sp., *Zinnia* sp., *Quisqualis* (*Quisqualis indica*), Poppy (*Papaver* sp.), *Bougainvillea* sp., Madanmasta (*Artabotrys odoratissimus*), Parwal (*Trichosanthes dioica*), Mitha neem (*Melia azedarach*), Amaltas (*Cassia fistula*), Paper flower (*Helicrysum* sp.), Askand (*Withania somnifera*), Dhencha (*Carthamus tinctorius*), Adhasisi (*Xanthium strumarium*), Akua (*Calotropis* sp.), Brinjal (*Solanum melongena*), Badidudhi (*Euphorbia pulcherrima*), Waghata (*Capparis zeylanica*), Mohwa (*Bassia*

*latifolia*), Kadam (*Anthocephalus cadamba*), Panwar (*Cassia obtusifolia*), Custard apple (*Anona squamosa*), Torai (*Luffa* sp.), Aghada (*Achyranthus aspera*), and *Pennisetum cenchroides*, are new records from India. The author further found *Citrus* sp. and Guava to be the most preferred food plants in Madhya Pradesh as against mango reported by previous workers at other places in India.

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## 22. SOME OBSERVATIONS DURING OVIPOSITION IN THE LEMON BUTTERFLY, *PAPILIO DEMOLEUS* L.

Generally, an egg-laying female butterfly would be guided by at least two different stimuli while searching for the larval host plant—the odour of the host plant and the coloration of its leaves. The following few observations on the egg-laying behaviour of *Papilio demoleus* are of interest from this point of view.

While experimenting on the role of visual stimuli in the egg-laying behaviour of this insect, it was noticed that the female was not attracted to the characteristic colour alone presented by the blue-green, green or yellow-green papers of the standardized Ostwald series used in the above experiments. When, however, such papers were offered with the odour of Citrus plant, the larval host plant of this insect, was present (the plant being within the large experimental cage but not in direct view of the insects), the females responded strongly to the coloured paper leaves. On these, the females exhibited a characteristic 'drumming response' described previously (Vaidya 1956), which is preliminary to oviposition.